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Remarks

Claims 1-3, 5-7, 9, and 12-25 were pending in the application. Claims 1-3, 5-7, and 9 were withdrawn. Claims 12-23 were rejected. Claims 24 and 25 were merely objected to and no claims were allowed. By the foregoing amendment, claims 1-3, 5-7, 9, and 17 are canceled, claims 12 and 18 are amended, and claims 26 and 27 are added. No new matter is presented.

Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 24 and 25. By the foregoing amendment, these are re-presented as claims 26 and 27, with claim 26 in independent form.

Claims Rejections-35 U.S.C. 103

Claims 12-23 were rejected under 35 U.S.C. 103(a) as being obvious and unpatentable over US Patent No. 5,277,153 of Kakabaker in view of US Patent No. 4,333,742 of Tanca and JP 2003-269887. Applicants respectfully traverse the rejection.

Kakabaker was asserted as including "a valve (16) that is opened to release superheated steam into the vessel... [and] considered to be the second valve recited in" claim 12. Office action, page 4, paragraph 2. Applicants note that the Kakabaker valve 16 is at the upstream end of a steam supply pipe. See FIG. 1 and col. 3, lines 36-38.

The Japanese patent was asserted as showing "a retractable soot blower in the same field of endeavor as Kakabaker." Office action, page 4, paragraph 3. The Office action identified element 3 as being "an insertion latching valve" as identified in a computer translation of the Japanese patent. Alternatively, element 35 was identified as being the claimed first valve.

Tanca was asserted as employing "combustion fuel gases for cleaning..." Office action, page 4, final paragraph. It was asserted that it would have been obvious to modify the step of using superheated steam "to incorporate the step of using either combustion fuel gases or combustion product/flue gases... as such gases are understood in the art to be satisfactory in dislodging built-up residue..." Office action, paragraph spanning pages 5 and 6.

The grounds of rejection are insufficient for several reasons. Kakabaker's valve 16 is a valve coupled to a steam supply pipe. Col. 3, line 39. Such a valve is necessary to admit the

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steam "only when a soot blowing operation is initiated." Col. 3, lines 43-44. This valve is presumably required to avoid a constant flow of steam from the source. Assuming, arguendo, that the combination of references is proper, the valve 16 would become a valve that holds back combustion gases in the combustion. There is no suggestion for such a valve. In the combination, Kakabaker's valve 16 would be replaced by whatever valve(s) of Tanca admit the fuel to the conduit. Such a valve would be located upstream not downstream of the location of combustion.

Amended claim 12 (see former claim 17) identifies the combustion gases as passing through the second valve. Thus combustion initiates upstream of the second valve. Thus claim 12 would distinguish the second valve from any valve introducing the fuel and/or oxidizer to the conduit. Claim 18 further identifies the second valve as between a main portion of the conduit and the insertion portion of the conduit. There is no suggestion in the references for this relatively downstream location. Claim 22 identifies causing a deflagration-to-detonation transition upstream of the second valve. There is no suggestion in the references for this location.

In the second paragraph of page 5 of the Office action, it was asserted generally "that the valves would be opened and closed as necessary..." and that one of ordinary skill "would select appropriate valve opening times through routine experimentation..." The Office action cited MPEP 2144.05(II)(A). However, the cited paragraph identifies optimization within prior art conditions and discusses, for example, optimization of a single quantitative parameter (e.g., concentration or temperature) within a prior art range. Clearly, time would be such a range. However, the claimed timing is not a mere question of optimizing a time (i.e., a duration) but of selecting an order. Thus, there is no suggestion for the timing of claims 13, 19, 21, and 20. The Office action appears to identify the claimed seal as being satisfied by the Kakabaker "seal-bearing arrangement (41)". Office action, page 4, paragraph 2. Said element, however, is identified as containing "rod-type seal assemblies 58 and 59..." Col. 5, line 32. There is no indication how these can be the claimed "seal between the combustion conduit and the access conduit" where the access conduit is the conduit initially sealed by the first valve which the Office action asserts is inherent in Kakabaker. As defined in the Office action, this element is merely internal to the asserted combustion conduit and would not serve the claimed function.

Claim 23 identifies particular insertion and conduit assembly steps. There is no suggestion in the references for these.

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Accordingly, Applicants submit that claims 12-16 and 18-27 are in condition for allowance. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

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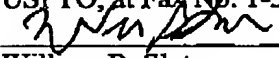
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I hereby certify that this correspondence is being faxed this 11th day of October, 2005 to the USPTO, at Fax No. 1-571-273-8300.


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